

AFP detectors simulations: status & outlook

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Men power & tasks

Salvatore Fazio (FP420 code, GasToF)

Pavel Ruzicka (FP220, QUARTIC ?)

STATUS OF ART

➔ FP220

- **G4 simulation of 3-D silicon detectors stations at 216 m and 224 m (sensitives)**
- **G4 simulation of pocket & behind electronics (dead materials)**
- **Beam pipe not simulated yet and timing detectors not yet included in simulation**

➔ FP420

- **G4 simulation of 3-D silicon detectors at 420 m (sensitives)**
- **G4 simulation of the beam pipe, pocket and electronics (dead materials)**
- **GasToF timing detector is simulated as dead material**
- **no parametrization**

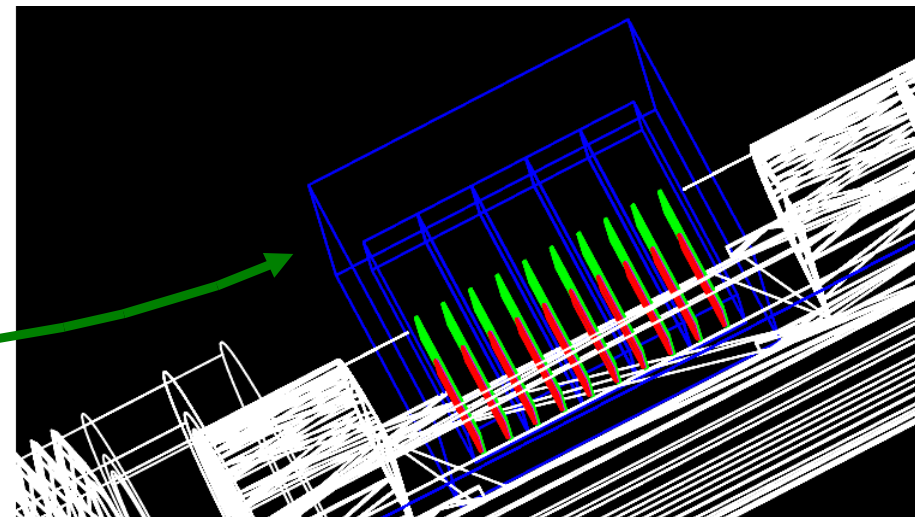
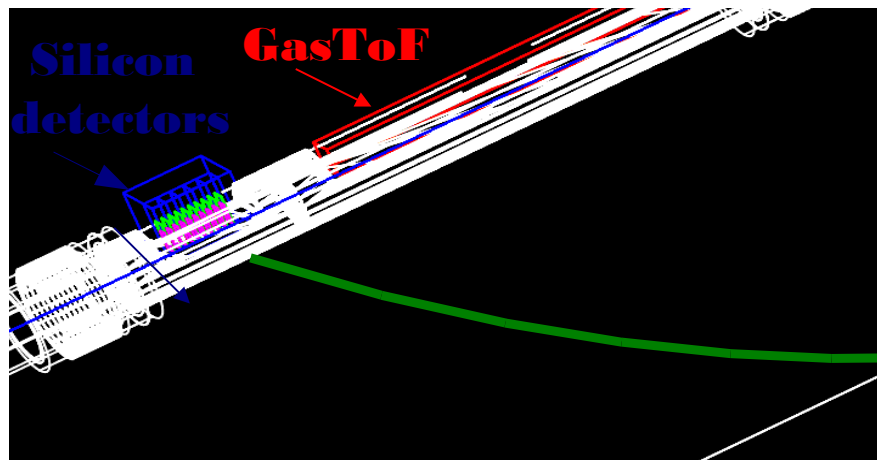
FP420 Simulation status

Sasha Zonkin's code
(CMS frame, XML format)

Masoud's geometry
translation

G4 general frame
+
Si detect. (sensitives)

G4 stand alone running code

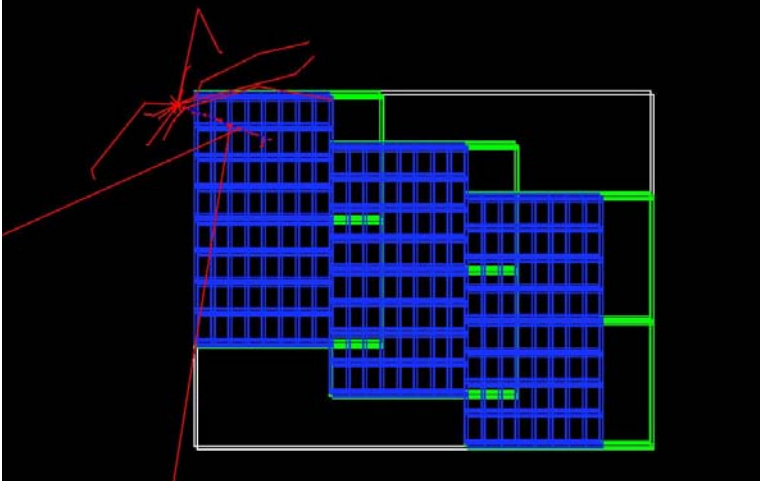


**EVERYTHING IS IN
G4 STANDARD FORMAT**

NOW

**GeoModel format
ATLAS frame**

FP220



FP220 and FP420 simulation is now joint in AFP simulation

- Geometry not completely defined yet!

AFP Collab. Meeting (Saclay, Oct 29th):

- FP420 beam pipe and pocket may be adapted to FP220.
- Both sation can be in the same G4 frame.

AFP /ATLAS software meeting about integration of AFP in the ATLAS frame (Nov 12th) :

Next two months “road map”

- **Today ---> December:** transtation of Geometry description into GeoModel
- **Mid of December :** discussion of AFP simulation status at the ATLAS Simulation Optim. Task Force meeting

January :

- note on AFP simulation to participate and be fully integrated in ATLAS.
- timing detectors simulation can begin.

Open questions

- **FP220 and FP420 in different mother volume?**
- **Code for particle propagation (Fptrack or Mad-X)?
An investigation will be done by Peter Sherwood.**